



Submersible Pumps

Dependable High Head And High Volume Performers

Gorman-Rupp submersibles incorporate over 66 years of design experience. They are specifically engineered for efficient, economical dewatering.

They overcome the conventional limitation of 25 foot suction lift, making them ideal for high head/high volume applications. They operate quietly and unattended below the water surface, which makes them less prone to attack by weather and vandals.

There are over 100 models submersibles to choose from including: high volume, high head wide base models for open pits and quarries, slimline models for drilled wells and narrow openings, trash

handling models for debris laden water and slurries, and smaller, portable models and sump pumps for general purpose use.

Pumps range in size from 1-1/2" to 20", capacities to 15,000 GPM, heads

to 600 feet. They operate totally or partially submerged and they work equally well in warm or sub-freezing conditions.

When dependability counts, you'll find Gorman-Rupp submersibles.



Round-the-clock unattended operation.

Most pumping jobs don't end when the crew goes home, and that's why submersible pumps are so valuable — they can be left unattended for hours, quietly working "overtime." Gorman-Rupp submersibles are electric motor driven or hydraulic powered.

They operate totally or partially submerged so there's no need to move the pumps as the water level changes. And, the pumps are designed to run dry for reasonable periods of time without seal damage.

Submersibles go where other pumps can't.

Submersible pumps excel in pumping water from narrow cofferdams and deep excavations, and they can be used in drilled wells and utility tunnels where workmen can't always go down to start up a conventional pump. In areas where flooding might knock out an above-ground pump, submersibles stand their ground.

Tandem operation.

The discharge of one pump can be connected through hose and couplings to the suction of another for tandem operation which effectively doubles the head at a given flow.

**Easy start.
High and dry above the liquid.**

A control panel with on-off switch and overload protection is standard on all Gorman-Rupp submersibles. Just flip the switch and the pump immediately goes to work.

No suction limitations.

Submersible pumps have no suction or priming problems. They have no suction hose so they're simple to use. Just submerge the pump and it goes to work immediately, providing higher heads for greater lifts than above-ground models of comparable size.

Serviceability.

Standard parts. Easy service. Gorman-Rupp submersibles are manufactured with standard parts. No waiting for days or weeks for special cables or parts to arrive.

And, if service is required it can be completed quickly and easily with common hand tools. The easy-to-service design permits removal of impeller and suction head without complete pump disassembly.

Stainless steel fitted models for corrosive applications.

For most corrosive/abrasive applications stainless steel fitted pumps are available. Impeller, diffuser, suction head and wear plate are constructed of corrosion-resistant CD4MCu (except models S3B18 and S3C18 which have rubber-lined suction head and seal plate).

ADI is also available on many models.



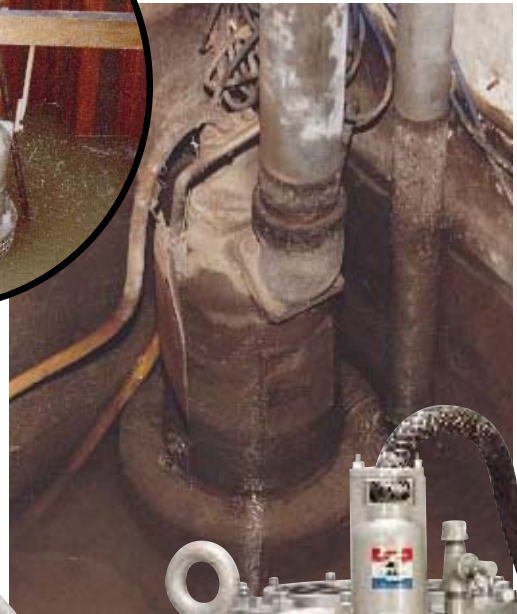
Wide-Base Submersible Pumps

For open pits and quarries.

Whether sitting on the soft, murky bottom of a cofferdam, or churning away deep inside a strip mine or quarry, Gorman-Rupp wide-base submersibles tackle the big jobs. Where large solids are not a problem, these versatile machines produce high head and high volume and stand up to the knocks and abuses of the worst conditions. Whatever the application, whether it is in general construction, strip mining, tunnels or utilities, Gorman-Rupp submersibles are built to operate quietly, effectively and safely.

The wide, solid base helps prevent the pump from turning into the ground or pumping its way into a hole. The rugged impeller is good for many trouble-free years of service. The motor operates in an oil-filled cavity, which is cooled by the water being pumped to prevent overheating. Double seals provide solid protection against pump failure and ensure years of trouble-free operation.

“...these versatile machines produce high head and high volume and stand up to the knocks and abuses of the worst conditions.”



Engineered for reliable, economical performance.

The Gorman-Rupp submersible pump design is engineered for maximum dependability. Only one moving part and three wearing surfaces. Behind this simplicity in design is Gorman-Rupp's innovative engineering and manufacturing quality control that assure rugged durability and extended pump life without costly maintenance.



Rugged impeller handles tough abrasives.

Abrasion resistant ductile iron and manganese bronze impellers stand up to sand, gravel, concrete powder and other abrasive construction materials. The fully-shrouded impeller back reduces seal pressure and helps prevent foreign material from entering the seal cavity. Seal life is extended and operational life of the pump is increased. Optional impellers of CD4MCu are available for corrosive/abrasive applications.



Oil-filled motor cavity keeps motor cool.

When Gorman-Rupp submersibles start pumping, a flow of water is established between the inner and outer walls of the motor housing, cooling the oil which in turn cools the motor and prevents overheating.



Corrosion resistant stainless steel shaft and hardware.

Rotor shaft and all internal nuts and bolts coming in contact with liquid are made of stainless steel to resist corrosion and pitting and extend the operational life of the pump. For severely corrosive/abrasive applications, stainless steel fitted pump models of CD4MCu are available.



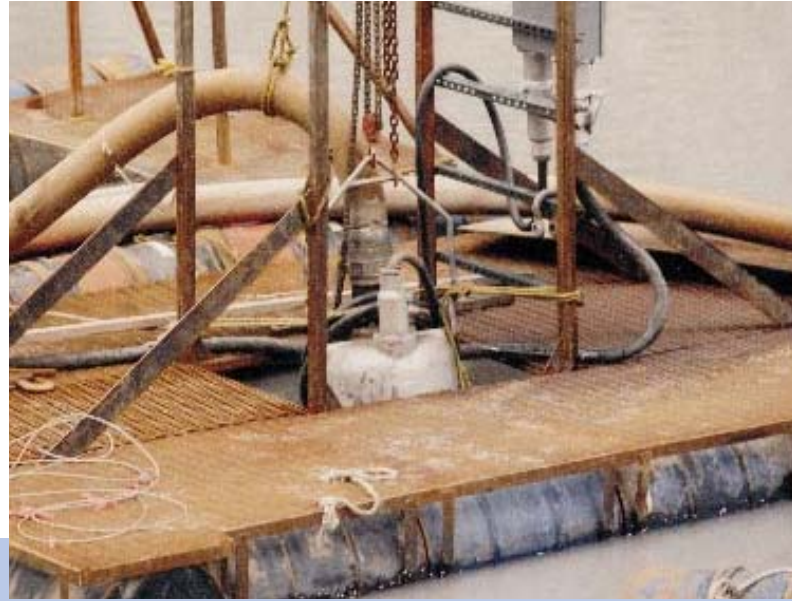
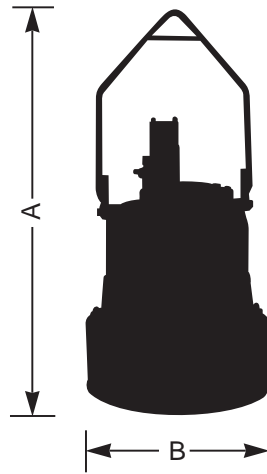
Dual seals... double protection.

Primary seal keeps dirty water in the pump end and prevents contamination of the oil cavity. A second "fail safe" seal provides extra protection against the possibility of damage to the motor. Positive oil lubrication enables the pump to run dry without seal damage.

Wide-Base Submersible Pumps

16 WIDE-BASE MODELS TO CHOOSE FROM.

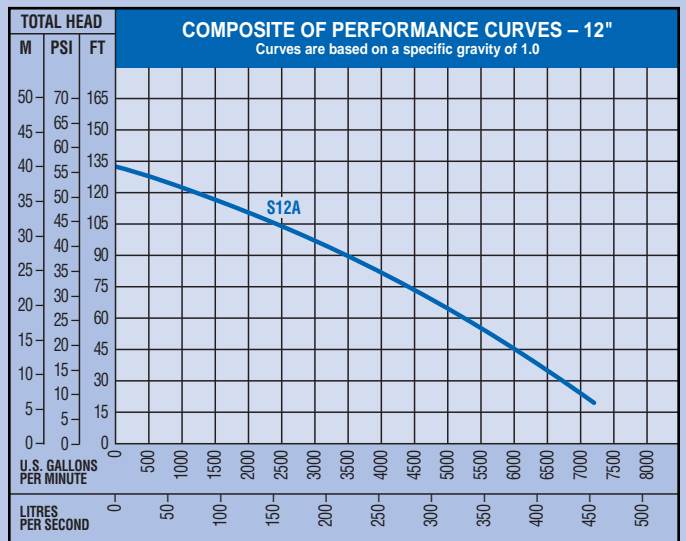
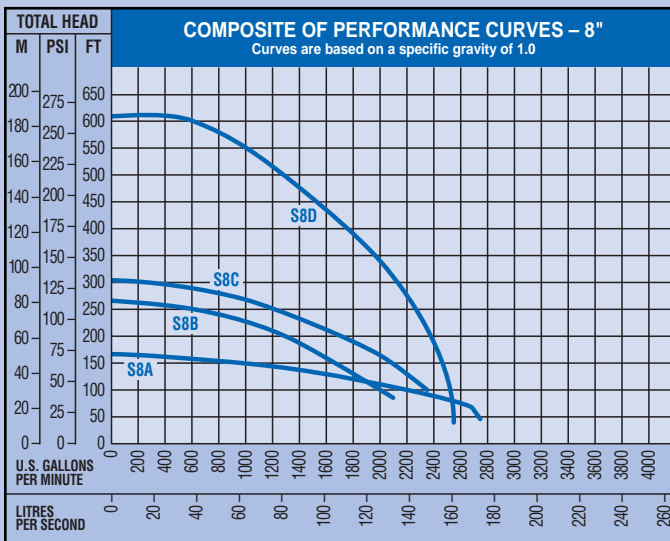
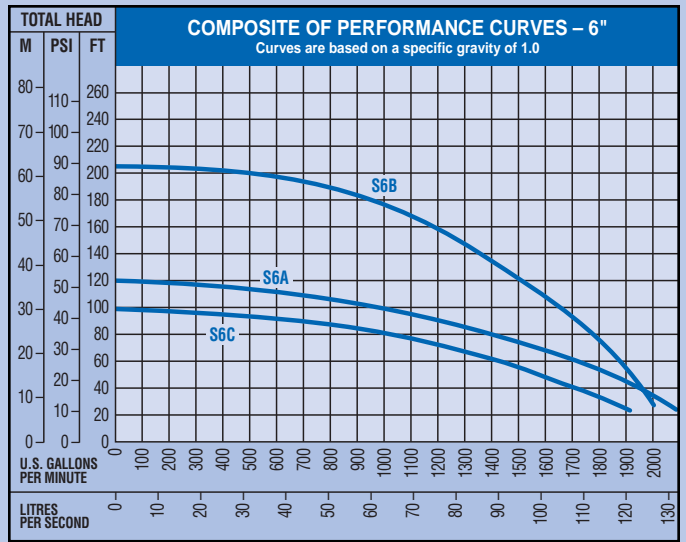
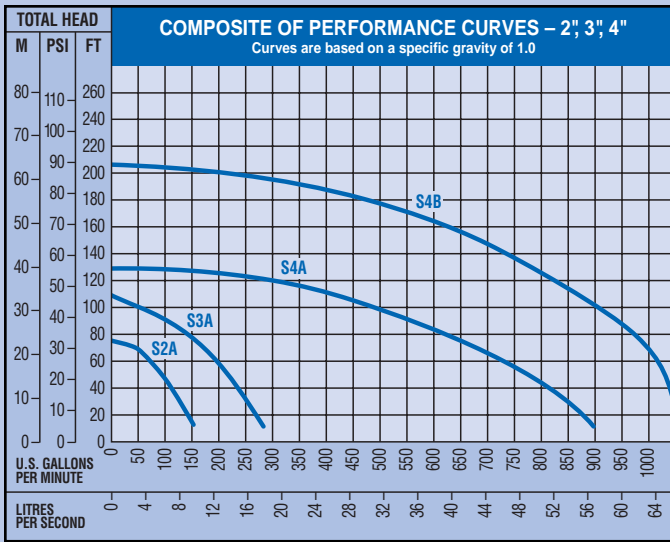
Gorman-Rupp wide-base submersibles are available in 2" to 12" sizes. They are capable of pumping up to 7400 GPM and can reach heads of 600'. Depending on the pump model, they will pass solids up to 1" in diameter.



Pump Selection Guide

Model	Discharge	Pump Height (A)	Diam.(B)	Strainer Openings	H.P.	Hertz	Motor RPM	Phase	Voltage	Cable Size
S2A1	2"	23-1/8"	11-3/16"	3/8" Diam.	2	60	3450	1	115,230	#10,#14
S3A1	3"	29"	14-3/16"	3/8" Diam.	5	60	3450	1 3	230 230/460,575	#10
S4A1	4"	43-1/16"	23-1/4"	5/8" sq.	25	60	1750	3	230,460 575	#6
S4B1 *S4B18	4"	46-1/4"	28"	5/8" sq.	50	60	1750	3	460,575	#6
S6C1	6"	47"	23-1/4"	5/8" sq.	35	60	1750	3	460,575	#6
S6A1	6"	57-7/16"	28"	1" sq.	60	60	1750	3	460,575	#6
S6B1 *S6B18	6"	57-7/16"	28"	1" sq.	95	60	1750	3	460,575	#2
S8A1 *S8A18	8"	57-7/16"	28"	1" sq.	95	60	1750	3	460,575	#2
S8B1	8"	60-13/64"	31-1/4"	5/8" sq.	100	60	1750	3	460,575	#1
S8C1 *S8C18	8"	60-13/64"	31-1/4"	5/8" sq.	140	60	1750	3	460,575	#2/0,#1
S8D1	8"	65-1/2"	33-1/2"	5/8" sq.	275	60	1750	3	460,575	#2/0
S12A1	12"	54-3/4"	31-1/4"	1" sq.	140	60	1750	3	460,575	#2/0

*Stainless Steel Fitted



Slimline Submersible Pumps

For drilled wells, narrow cofferdams and hard to reach places, Gorman-Rupp's Slimline submersible pumps are lighter in weight and easier to handle than their larger cousins in the wide-base line. But that doesn't mean there's not a strong family resemblance: Gorman-Rupp puts extra protection into the seals, and the impeller is rugged and dependable.

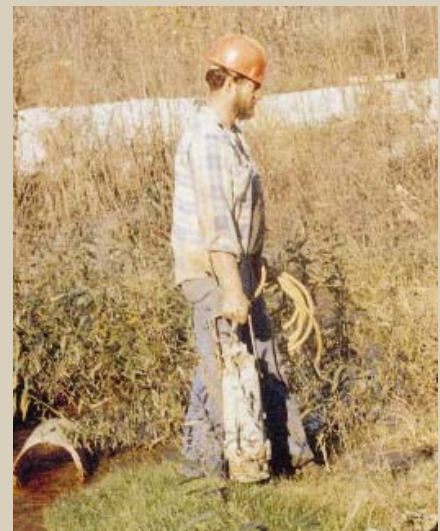
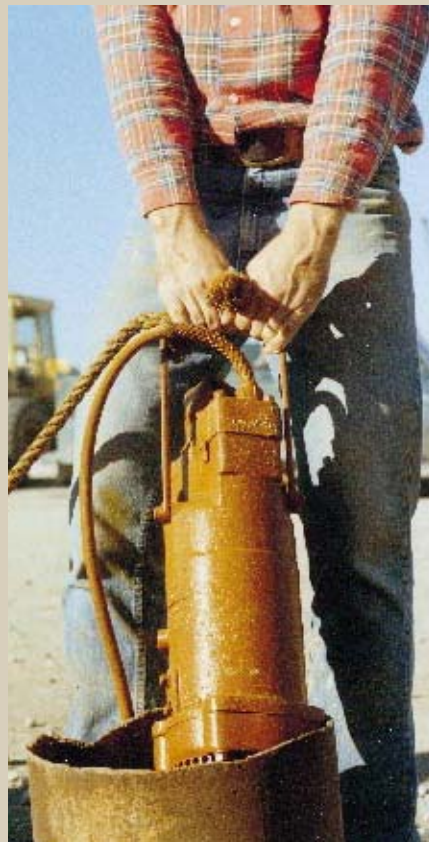
The Slimline design uses economy of space to create a pump that can go many places other pumps won't, and their portability makes them all the more useful. Where additional head is needed, two Slimline pumps can be used in tandem for twice the head at the same flow.

Dependable.

Slimline submersibles are designed for continuous, unattended operation. These electric motor-driven pumps need no fuel checks or winterizing. There is no danger of flooding since they operate totally or partially submerged and they work equally well in warm or sub-freezing conditions.

“Slimline submersibles are designed for continuous, unattended operation. The Slimline design uses economy of space to create a pump that can go many places other pumps won’t.”





Slimline design.

The Slimline design is especially suited for use where space is limited. For instance, the 2-inch submersible is only 7.5 inches in diameter and easily fits in an 8-inch casing, eliminating the need for larger, more costly casings and screens.

Lightweight and portable.

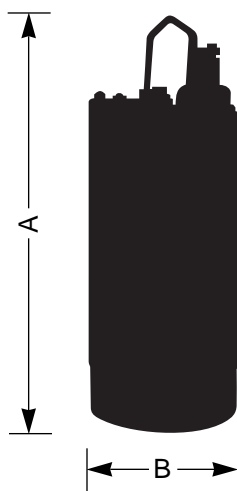
Gorman-Rupp submersibles feature a compact, light-in-weight design which makes handling and installation simple. Our 1 hp, 2-inch model weighs only 43 lbs. yet pumps up to 110 GPM, heads to 55 feet. The 3-inch model weighs only 120 lbs. and will pump up to 475 GPM, heads to 105 feet.



Slimline Submersible Pumps

21 HIGH PERFORMANCE SLIMLINE MODELS TO CHOOSE FROM.

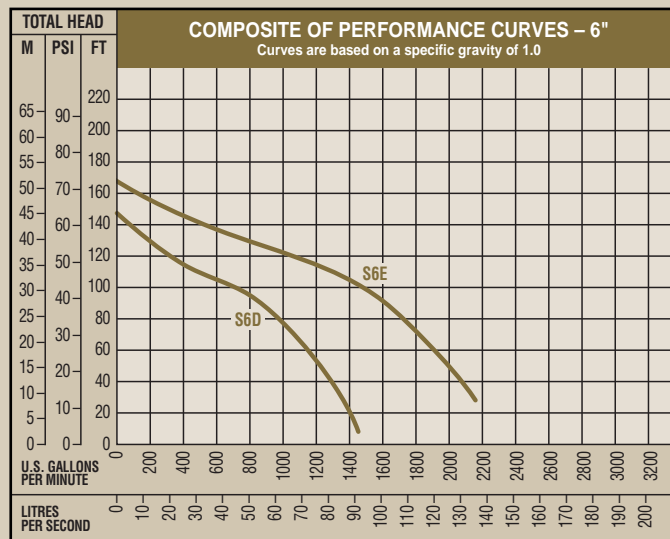
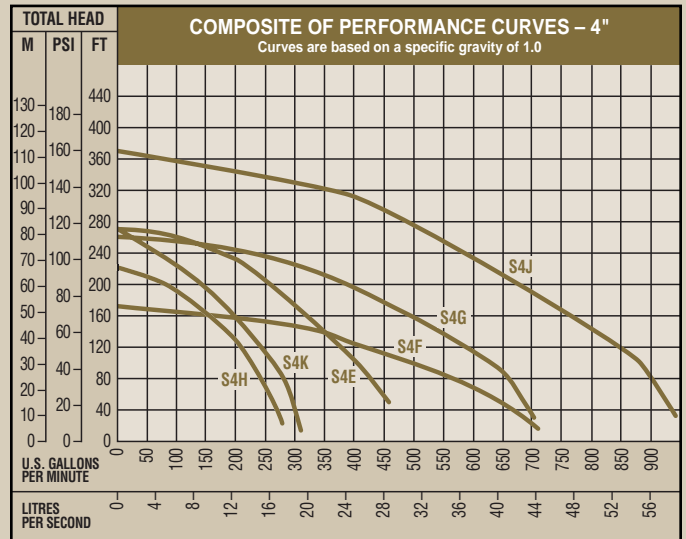
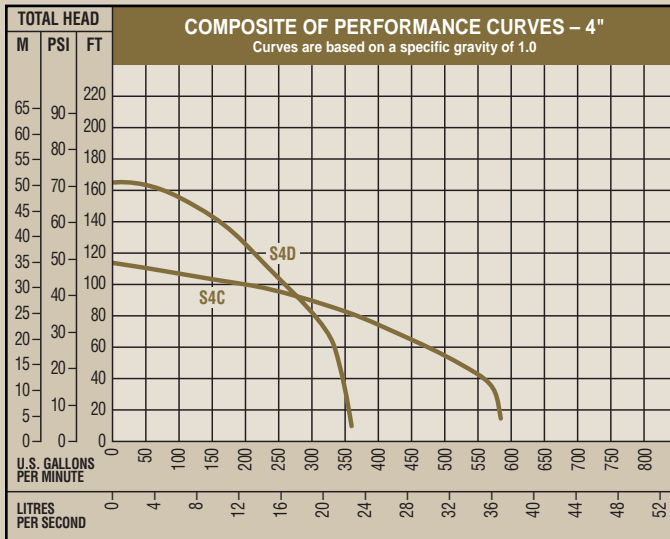
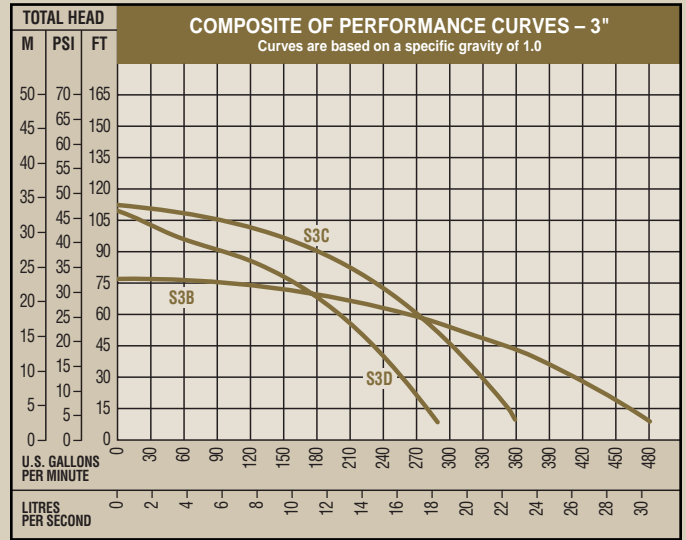
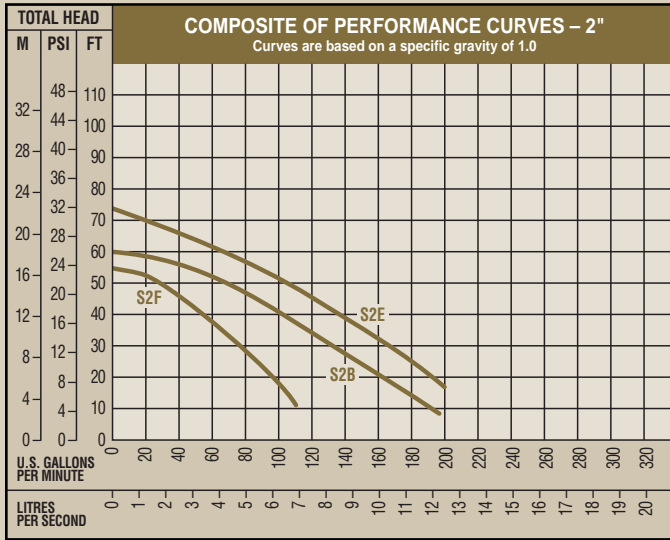
Gorman-Rupp Slimline submersibles are available in 2" thru 6" discharge sizes. They are capable of pumping up to 2100 GPM and can reach heads up to 350'. Depending on the pump model, they are capable of passing solids up to 1/2" in diameter.



Pump Selection Guide

Model	Discharge	Pump Height (A)	Diam.(B)	Strainer Openings	H.P.	Hertz	Motor RPM	Phase	Voltage	Cable Size
S2F1	2"	22-5/8"	7-1/2"	5/16" Diam.	1	60	3450	1	115/230	#14
S2B1 *S2B18	2"	25"	7-1/2"	5/16" Diam.	2	60	3450	1 3	115/230 230/460, 575	#14
S2E1 *S2E18	2"	25-3/16"	7-1/2"	5/16" Diam.	3.5	60	3450	3	230/460, 575	#14
S3D1	3"	27-1/8"	9-5/8"	3/8" Diam.	5	60	3450	1 3	230 230/460, 575	#10
S3B1 *S3B18	3"	26-3/4"	9-5/8"	3/8" Diam.	6	60	3450	1 3	230 230/460, 575	#10
S3C1 *S3C18	3"	26-3/4"	9-5/8"	3/8" Diam.	6	60	3450	1 3	230 230/460, 575	#10
S4C1 *S4C18	4"	30"	10-13/16"	3/8" Diam.	10	60	3450	3	230/460 575	#8 #10
S4D1 *S4D18	4"	30"	10-13/16"	3/8" Diam.	10	60	3450	3	230/460 575	#8 #10
S4H1	4"	28-3/8"	10-13/16"	1/2" Diam.	10	60	3450	3	200/230/460/575	#8
S4K1	4"	34-3/8"	14-1/4"	3/8" Diam.	15	60	3450	3	460/575	#12
S4E1	4"	37-1/2"	14-1/4"	3/8" Diam.	20	60	3450	3	460/575	#8
S4F1	4"	40"	14-1/4"	3/8" Diam.	20	60	3450	3	460/575	#8
S4G1	4"	50-1/2"	15-7/8"	1/2" Diam.	30	60	3450	3	460/575	#8
S4J1	4"	59-5/8"	17-3/8"	1/2" Diam.	60	60	3450	3	460/575	#6
S6D1	6"	51-3/4"	15-7/8"	1/2" Diam.	30	60	3450	3	460/575	#8
S6E1	6"	61-1/4"	17-3/8"	1/2" Diam.	60	60	3450	3	460/575	#6

*Stainless Steel Fitted



J Series® Submersible Trash Pumps

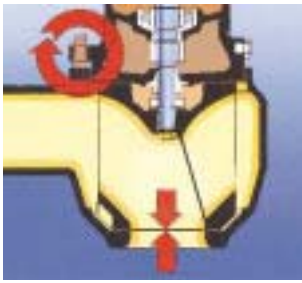
Gorman-Rupp has many models of J Series® submersible pumps in 3" to 20" discharge sizes, capacities to 15,000 GPM, heads to 265 feet, from 3 to 215 hp.

These pumps are designed specifically for trash handling applications and incorporate several engineering features which prevent jamming and clogging, the two most common problems in pumping liquids containing solids.



Pump Selection Guide

Model	Discharge	Pump Height (A)	Diam.(B)	Solids Handling	H.P.	Hertz	Motor RPM	Phase	Voltage	Cable Size
JTV3D60-E4	3"	25-3/16"	12"	3.15"	4	60	1750	3	230/460	#16
JTV3G60-E6.2	3"	28"	12"	3.15"	6.2	60	1750	3	230/460	#14
JTV4G60-E11	4"	29-3/4"	12"	3.15"	11	60	1750	3	230/460	#10
JT4M60-E11	4"	30-1/2"	12"	3.15"	11	60	1750	3	230/460	#10
JTV4E60-E17	4"	36"	13-3/4"	3.15"	17	60	3450	3	230/460	#10
JT4G60-E18	4"	42-1/8"	21-1/8"	3.15"	18	60	1750	3	230/460	#6
JT6A60-E13	6"	38-1/2"	13-3/4"	3.15"	13	60	1750	3	230/460	#10
JT6C60-E21	6"	43-1/2"	21-5/8"	3.15"	21	60	1750	3	230/460	#6
JT6F60-E42	6"	50-3/16"	26-1/2"	3.15"	42	60	1750	3	230/460	#8
JT6K60-E64	6"	59-7/16"	27-1/2"	3.15"	64	60	1750	3	460	#6
JT8M60-E121	8"	68-5/16"	33-1/2"	3.15"	121	60	1750	3	460	#2
JT12B60-E43	12"	68-11/16"	27-1/2"	3.15"	43	60	850	3	460	#8
JT12C60-E94	12"	72-1/4"	27-1/2"	3.15"	94	60	1150	3	460	#4



External Axial Adjustment.

Gorman-Rupp submersibles will operate at peak efficiency by maintaining the proper clearance between the impeller and the volute. The impeller clearance can be adjusted quickly and easily by turning just three external screws. No disassembly or replacement parts necessary.



No Jamming.

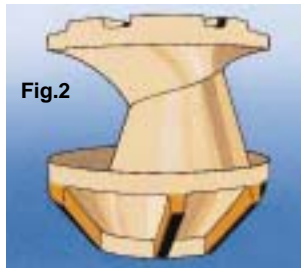
To eliminate jamming caused by rags and debris which get stuck in the clearance between the impeller and the volute, Gorman-Rupp provides two innovative impellers to choose from.

The standard Gorman-Rupp submersible pumps have a self-cleaning, axial flow single vane impeller (Fig.1) which forces rags and debris away from the clearance between the impeller and the volute



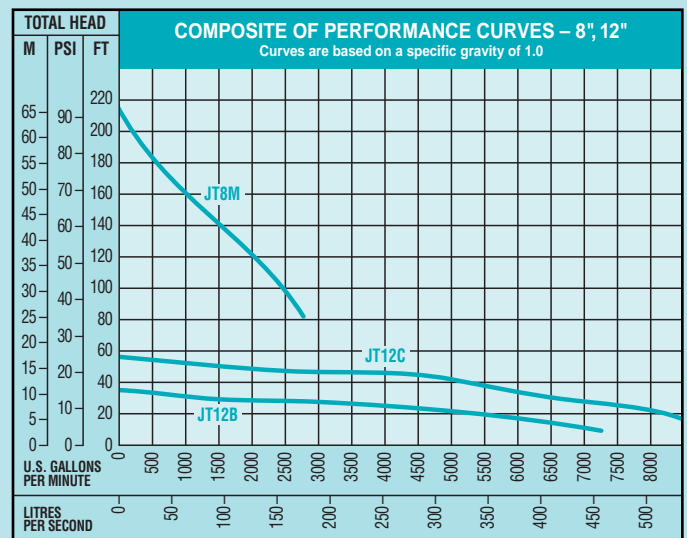
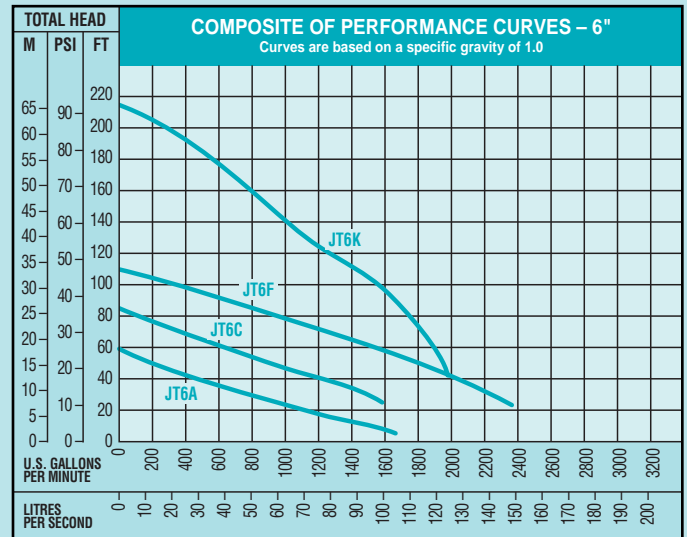
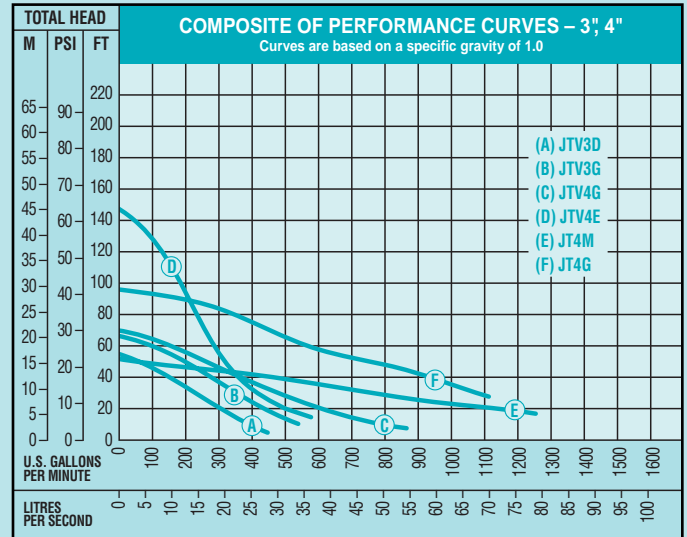
No Clogging.

Gorman-Rupp impellers are designed with a large free passage that will handle up to 5-1/2" diameter solids depending on pump model. The semi axial flow impeller design has long screw-like vanes, which enable the pump to handle long rags and other debris without wrapping around the vanes.



casing to prevent jamming. In addition, auxiliary impeller vanes (Fig. 2) are provided to eliminate back flow which is created by the pressure difference above the clearance. The back flow problem is common with traditional impellers and cylindrical impeller clearance.

The auxiliary vanes act like a pump, decreasing the flow through the clearance which keeps impurities away from the area most prone to jamming.



HS Series® Hydraulic Submersible Pumps

Gorman-Rupp hydraulic submersibles are designed for solids handling construction dewatering applications and for pumping sludges and slurries such as refinery, mining and paper plant wastes. They are also excellent for pumping sewage from digester and holding tanks or bypass applications.

The six inch pump model HSV6B31-HYD is designed to fit through 22" manholes, which makes it ideal for sewer bypass and trenching applications.

Hydraulic submersibles overcome the conventional limitations of 25' suction lift; and without electrical hazards, they are well-suited for most hazardous locations.

Pumps are powered by gas or diesel engine-driven hydraulic power unit which provides up to 2900 psi. Pump speed can be varied to suit job requirements, providing maximum efficiency and minimum fuel consumption. This makes them much more economical to operate than generator-driven electric submersibles which must operate at constant speed.

Pumps feature a fully-recessed vortex impeller, oil-lubricated seals and can run dry without damage. Maintenance can be performed in the field.

Pumps are constructed of ductile iron and aluminum and are available in 3", 4" and 6" discharge sizes. Capacities to 1600 GPM, heads to 175 feet. They will handle up to 5" diameter solids, depending on model.

Hydraulic power units for 4" and 6" discharge sizes are equipped with a standard 63 HP Deutz diesel engine and skid base.

Two-wheel pneumatic tire wheel kit and D.O.T. - or Transport Canada-specified highway trailer are available.



Hydraulic Submersible Pump Specifications

Model	Discharge Size	Max. Solids	Max. Flow	Max. Head	Max. Input	Hydraulic Pressure	Materials of Construction	Weight
HSV3A1-HYD	3"	2-1/2"	400 GPM	71'	8 GPM Max.	2500 PSI Max.	Aluminum	25 lbs.
HSV3B31-HYD	3"	2-1/2"	340 GPM	57'	8 GPM Max.	2500 PSI Max.	Ductile Iron	28 lbs.
HSV4A31-HYD	4"	3-1/2"	1000 GPM	175'	30 GPM Max.	3000 PSI Max.	Ductile Iron	325 lbs.
HSV6B31-HYD	6"	5"	1500 GPM	54'	30 GPM Max.	3000 PSI Max.	Ductile Iron	255 lbs.
HSV6A31-HYD	6"	5"	1600 GPM	110'	30 GPM Max.	3000 PSI Max.	Ductile Iron	350 lbs.

Hydraulic Power Unit Specifications

Model	Power	Hydraulic Pump	Max. Flow	Max. Pressure	Weight	Hose Ports	Fuel Capacity
HSP-L100AE	10 HP Yanmar Diesel	Fixed Displacement Gear	6 GPM	1800 PSI	225 lbs.	1/2"	1.21 Gal.
HSP-GX390	13 HP Honda Gas	Fixed Displacement Gear	6 GPM	2100 PSI	185 lbs.	1/2"	1.72 Gal.
HSP-F4L	63 HP Deutz Diesel	Variable Piston Type	28 GPM	2900 PSI	1900 lbs.	1"	38.9 Gal.

HandyWeights™ Submersible Pumps

Gorman-Rupp's rugged lightweight submersibles make dewatering the job site quick and easy. They are ideal for dewatering trenches, footers, manholes, sumps and other hard to reach places where larger submersibles just won't fit.



While these 2" pumps are small on size, they are big on performance. The S2H delivers 87 GPM and heads up to 53 feet. Constructed with cast iron pump casings and impellers, and equipped with double mechanical seals, these pumps can handle the toughest conditions.



Drilled wells or general dewatering, these economical, light-in-weight submersibles are small enough to fit in 10-inch casing. Pumps are available in 1-1/2" and 2" discharge sizes, six models to choose from.



The submersible battery-powered Handy-Sub™ pump is ideal for dewatering hard-to-reach places where electricity is not available. Simply connect pump's battery clips to any 12-volt truck or automobile battery. Operates efficiently and quietly. Pumps up to 43 GPM, heads to 25 feet, 1-1/2" discharge size.

Standard Controls

Control boxes with short circuit and overload protection are standard equipment on all Gorman-Rupp submersibles.

Rain-proof NEMA 3R control boxes contain provisions for installation of optional low voltage liquid level switch. Automatic liquid level controls are available for 115 and 230 volt single phase and 230/460, 575 volt 3 phase.

Below 10 HP — Control boxes are designed to accept a low voltage panel containing a relay and transformer to reduce voltage to 120 volts for the liquid level switch, an important safety factor.

10 HP and Above — For added safety, control boxes come standard with all internal circuits reduced to 120 volts, except the straight through main power line, ready to receive the low voltage liquid level switch.

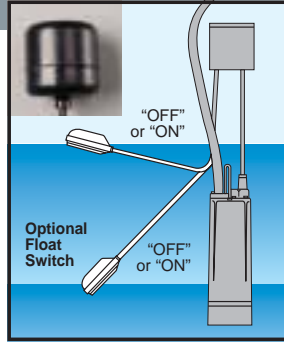
For ultimate protection, pumps and control boxes are designed to function as a unit.



Optional Liquid Level Controls

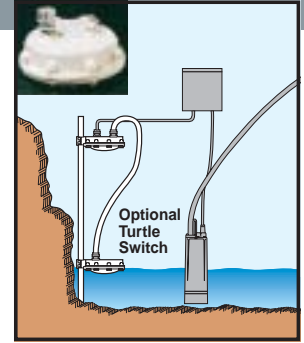
Two alternatives are available for applications requiring liquid level monitoring. Both can be used to shut off pump when a tank or reservoir is filled or when a sump is empty. Contact the factory or your local distributor for complete information on installation and operation of liquid level controls.

Float Switch



Automatically regulates liquid levels and indicates the presence of liquids in wells, tanks, etc. Switch features completely sealed, waterproof inner casing which prevents any current from entering the water. "On" and "Off" switch action is easily adjusted to the desired level by a simple adjustment of cord length.

Turtle Switch



Exceptional accuracy and reliability packaged in a maintenance-free aluminum housing. Liquid level control consists of two turtle-shaped bowls, each with an automatic switch. As water rises pressure against a diaphragm activates the switch and starts pump operation. Desired liquid level is obtained by adjusting the distance between the two switches.

GORMAN-RUPP OFFERS A FULL LINE OF PUMPS FOR EVERY APPLICATION.



Trash Pumps

Heavy-duty, self-priming centrifugal trash pumps handle sticks, stones and construction debris. Depending on pump model, they will pass up to 3" diameter spherical solids.

Available in 1-1/2" to 10" sizes, capacities to 3500 GPM, heads to 180 feet.



Vacuum Assist Trash Pumps

Gorman-Rupp Prime Aire® trash pumps are ideal for sewage bypass, site dewatering and other jobs where intermittent flow is a problem.

Pumps are available in 4", 6" and 12" sizes, capacities to 5900 GPM and heads up to 418 feet.



Diaphragm Pumps

When other pumps get bogged down in sludge, mud and other liquids, Gorman-Rupp diaphragm pumps take over. There are 20 models to choose from in 2", 3" and 4" sizes, capacities to 150 GPM and heads up to 25 feet.



Standard Centrifugal Pumps

Gorman-Rupp manufactures over 300 models of high volume, high pressure standard centrifugal pumps. Pump models are available in 1-1/4" to 6" discharge sizes, capacities to 1850 GPM and heads up to 275 feet.

The Pump People™



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